

REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, tentatively rejected all claims 1-20.

Rejections under 35 U.S.C. 112, First Paragraph

The Office Action rejected claims 11 and 14 under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. While Applicant does not agree with this rejection, Applicant has canceled these claims (rendering the rejection moot) in order to advance the prosecution of this application.

Rejections under 35 U.S.C. 102

The Office Action rejected claims 12, 13, 15-17, and 20 under 35 U.S.C 102 (e) as allegedly anticipated by U.S. Patent No. 6,678,157 to Bestwick. For at least the following reasons, Applicant requests reconsideration of these rejections.

With respect to independent claim 12, as show in Fig. 5 (of Bestwick) and described in col. 5, lines 11-19 and 28-30, the fan (48) sucks ambient air into the duct from outside the enclosure, and the cooling air flows along the duct in the direction of the arrows to cool the microprocessor (20) (the duct extends only as far as the microprocessor (20)). Then, air from the duct can be used to cool other components in the enclosure before being expelled by the enclosure fans (12).

However, Bestwick roughly discloses that air from the duct can be used to cool other components in the enclosure after the cooling air flowing along the duct cools the microprocessor (20) – *i.e.*, these components can be located in the enclosure such as the capacitors (60, 62) located between

the fan (48) and the heat sink (22), or these components can be located more deeper inside the enclosure than the capacitors (60, 62) with respect to the heat sink (22).

In comparison with the present application, the first heat source (Q1) with the highest temperature is located between the fan units (2, 2') next to the inlet (V1) and the second heat source (Q2) having temperature lowering than the first heat source (Q1). As the initial airflow (F0) passes through the first heat source Q1, the conductive assembly 1, prior to reaching the second heat source (Q2), its temperature increases and a first airflow (F1) is formed with temperature higher than that of the initial airflow (F0), but lower than that of the second heat source (Q2). Then, as the first airflow (F1) passes through the second heat source (Q2), its temperature rises again and a second airflow (F2) is formed to be with temperature higher than that of the first airflow (F1). Temperature ingredient yields between the first airflow (F1) and the second airflow (F2), and the first airflow (F1) still has capacity to absorb heat from the second heat source (Q2). Thus, heat from the first heat source (Q1) and the second heat source (Q2) can be efficiency dissipated.

This distinction is clearly expressed in claim 12, which recites: "at least one first fan assembly located between the surroundings and the conductive assembly, wherein the first fan assembly introduces the initial airflow of the surroundings into the conductive assembly to form at least one first airflow, and the first airflow passes the second heat source having temperature higher than that of the first airflow to form at least one second airflow, and temperature ingredient is yielded between the first airflow and the second airflow."

For at least this reason, the rejection of claim 12 is misplaced. As claims 13 and 15-20 each depend from claim 12, these claims define over the cited art for at least the same reason.

Rejections under 35 U.S.C. 103

The Office Action rejected claims 14, 18 and 19 under 35 U.S.C 103(a) as allegedly unpatentable over Bestwick in view of U.S. Patent Application Publication No. 2005/0041391 to Wrycraft et al. First, as noted above, these claims depend from claim 12, and therefore define over the cited art for at least the same reasons discussed above. Applicant further traverses this rejection for at least the following additional reasons.

It should be appreciated from the discussion in paragraph [0033] and Fig. 1 of Wrycraft that the microprocessors (4 and 6) tend to generate more heat than other electronic components (15) of the assembly, and the heat-sink (20 and 22) are used to maintain temperature of the microprocessors (4 and 6) within acceptable operating limits. In Fig. 1, the electronic components (15) placed next to the wall (16) are located between the fan (18) and the microprocessors (4 and 6). It is clear that the configuration of the microprocessors (4 and 6) and the electronic components (15) of Wrycraft's case is effectively opposite to that of the present application.

Thus, even combined, the features and method of heat dissipation of Wrycraft in view of Bestwick is different from the present application, and these additional rejections should be withdrawn.

The Office Action also rejected claims 1-7 and 10 under 35 U.S.C 103 (a) as allegedly unpatentable over Bestwick in view of U.S. Patent Application Publication No. 2003/0142476 to Tomioka et al. In addition, the Office Action rejected claims 8, 9, and 11 under 35 U.S.C 103 (a) as allegedly unpatentable over Bestwick in view of Tomioka, and further in view of Wrycraft.

With regard to the rejection of claim 1, the configuration of the present application is different from the Bestwick's case (as well as the combination of Bestwick in view of Tomioka

or further in view of Wrycraft). In this regard, the feature of the present application is unique with respect to these citations and the assemblies thereof. Specifically, claim 1 recites (among other features): "a heat-dissipating module for providing heat transfer and convection to the surroundings, having at least one conductive assembly disposed on the first heat source to absorb heat transferring from the first heat source and at least one first fan assembly located between the surroundings and the conductive assembly, wherein the first fan assembly introduces the initial airflow of the surroundings into the conductive assembly to form at least one first airflow, and the first airflow passes the second heat source having temperature higher than that of the first airflow to form at least one second airflow, and temperature ingredient is yielded between the first airflow and the second airflow."

In view of the discussion above, this feature clearly defines over the teachings of the cited art, and for at least this reason, the rejection of independent claim 1 (and dependent claims 2-10) should be withdrawn.

As a separate and independent basis for the patentability of claim 1 (and dependent claims 2-10), Applicant respectfully traverses the rejection as failing to identify a proper basis for combining the Bestwick and Tomoika references. In combining these references, the Office Action stated only that the combination would have been obvious "to provide efficient cooling and maximum computing power of portable computers." (Office Action, page 6 lines 15-16). This alleged motivation is clearly improper in view of well-established Federal Circuit precedent.

It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. § 103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc., 721 F.2d 1540, 1551 (Fed. Cir. 1983). More significantly,

"The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ..." Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention."

(*Emphasis added.*) In re Dow Chemical Company, 837 F.2d 469, 473 (Fed. Cir. 1988).

In this regard, Applicant notes that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. Stiftung v. Renishaw PLC, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore, in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements to derive an electronic device and heat-dissipating module, as claimed by the Applicant.

When an obviousness determination is based on multiple prior art references, there must be a showing of some "teaching, suggestion, or reason" to combine the references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997) (also noting that the "absence of such a suggestion to combine is dispositive in an obviousness determination").

Evidence of a suggestion, teaching, or motivation to combine prior art references may flow, inter alia, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in

whatever form, must nevertheless be "clear and particular." Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617.

If there was no motivation or suggestion to combine selective teachings from multiple prior art references, one of ordinary skill in the art would not have viewed the present invention as obvious. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); Gambro Lundia AB, 110 F.3d at 1579, 42 USPQ2d at 1383 ("The absence of such a suggestion to combine is dispositive in an obviousness determination.").

Significantly, where there is no apparent disadvantage present in a particular prior art reference, then generally there can be no motivation to combine the teaching of another reference with the particular prior art reference. Winner Int'l Royalty Corp. v. Wang, No 98-1553 (Fed. Cir. January 27, 2000).

In the present situation, the Office Action has stated that the combination would be obvious "to provide efficient cooling and maximum computing power of portable computers." To provide an appropriate motivation to combine, however, the Office Action must cite where (in the prior art itself) the suggestion exists that the particular combination of features would realize more efficient cooling and maximum computing power. Without being able to provide such an identification, the combination reflects clear and improper hindsight reasoning.

For at least the foregoing reasons, the rejections of all remaining claims should be withdrawn.

If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

By:



Daniel R. McClure
Registration No. 38,962

Thomas, Kayden, Horstemeyer & Risley, LLP
100 Galleria Pkwy, NW
Suite 1750
Atlanta, GA 30339
770-933-9500